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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/283,431	04/01/99	ZHOU	W 475.08.423

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EXAMINER

LACOURCIERE, K

ART UNIT

PAPER NUMBER

1635

16

DATE MAILED: 04/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/283,431

Applicant(s)

Zhou et al.

Examiner

Karen A. Lacourciere

Group Art Unit

1635


☒ Responsive to communication(s) filed on Mar 27, 2001
☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim
☒ Claim(s) 4-6 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 4-6 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.
Application Papers
☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.
Priority under 35 U.S.C. § 119
☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
Attachment(s)
☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1. The request filed on March 27, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/283,431 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Objection

2. Claim 4 is objected to because of the following informalities: In the last line of the claim, the word "substituted" is misspelt as "subsitutued". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 are indefinite because it is unclear whether the limitation "having internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate and phosphoramidate linkages" is meant to limit the regions of 2'-O-substituted ribonucleotides or if this limitation applies to the entire oligonucleotide.

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For the purposes of the examination of the instant case, the limitation “having internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate and phosphoramidate linkages” has been interpreted to mean that the entire oligonucleotide has “internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate and phosphoramidate linkages”.

Claims 4-6 are further indefinite due to the recitation “one or more POPS blocks”. “POPS blocks” have been defined as regions of alternating phosphodiester and phosphorothioate internucleoside linkages. As defined, a single “POPS block” does not have a specified length and, as such, one skilled in the art would not be able to differentiate between a single “POPS block” and a series of “one or more” contiguous “POPS blocks”. One skilled in the art could not determine if “each” POPS block is flanked by regions of 2'-O-substituted ribonucleotides, or if a series of contiguous POPS blocks are flanked at each end by 2'-Osubstituted ribonucleotides.

Therefore, one skilled in the art would not be able to determine the metes and bounds of the oligonucleotides claimed in claims 4-6.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold et al.

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Claims 4-6 recite an oligonucleotide consisting of one or more POPS blocks flanked by 2'-O-modified regions wherein the oligonucleotide has internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate and phosphoramidate linkages. "Has, have and having" are considered to be open language unless the specification as filed expressly defines has/have/having differently. The oligonucleotides disclosed by Arnold et al. (see, for example p 87, compounds 3336-1 and 3339-1) include a 20-mer and a 24-mer which consist of a core region of alternating phosphodiester and phosphorothioate bonds flanked by regions of 2'-O-methyl modified nucleosides. The oligonucleotides disclosed by Arnold et al. comprise phosphodiester and phosphorothioate linkages. As such, Arnold et al. anticipates claims 4-6.

Response to Arguments

7. Applicant's arguments filed March 27, 2001 have been fully considered but they are not persuasive.

Applicant argues that the amendments filed March 27, 2001 overcome the rejections of record set forth in the prior Office action (mailed 06-29-00), however, these amendments do not correct the indefinite nature of the claims, nor do they overcome the rejection under 35 U.S.C 102(b), as discussed in the rejections set forth in the instant Office action.

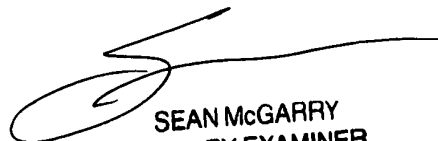
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen A. Lacourciere whose telephone number is (703) 308-7523.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader can be reached at (703) 308-0447. The fax phone number for this Group is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.



SEAN McGARRY
PRIMARY EXAMINER
TC 1600

Karen A. Lacourciere

April 17, 2001